



Social License to Operate for CDR

*18 April 2024
NEGEM General
Assembly*

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This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under Grant Agreement No. 869192.





Overview



Carry out an integrated qualitative and quantitative assessment of attitudes among the public and other stakeholders towards different NETPs



- 5.1 – Social License to Operate (ML Report analysis)
- 5.2 – Stakeholder Views on Business Case (Interviews)
- 5.3 – Stakeholder Views on NETPs governance (workshops with experimental design)
- 5.4 – Expert Elicitations
- 5.6 – Stakeholder Survey



OceanNETs

- 5.5 – Public Perception Survey - Led by University of Groningen (RUG)

<https://www.negemproject.eu/results/>

Stakeholder survey (D5.6)

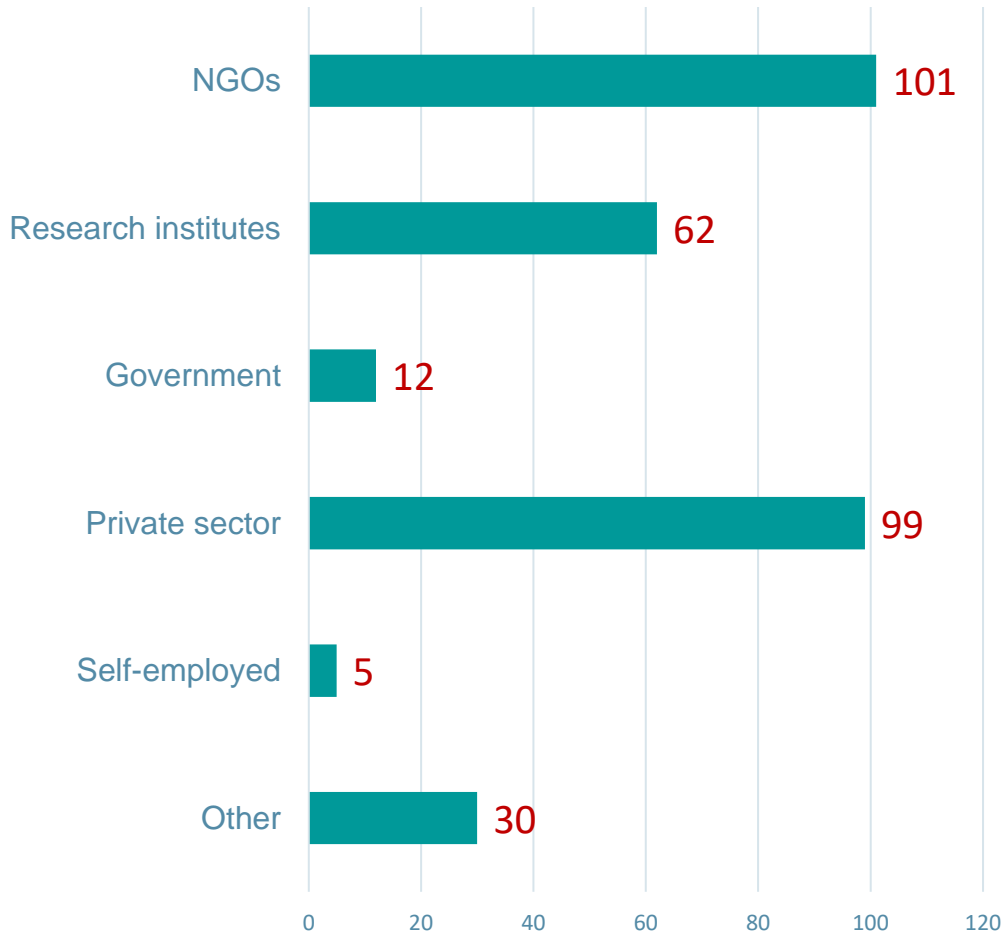


- We collected data on stakeholder perceptions of NETPs and their role(s) in the European context
- Our survey was circulated to 3500+ contacts in our stakeholder database amplified by Negem partners via their own networks, LinkedIn
- We are now launching a booster in multiple languages using Qualtrics to improve the robustness of our findings for journal publication by adding an additional 250 respondents
- We also coordinated parts of the stakeholder survey with the public survey (with colleagues at RUG) to facilitate comparison of public and stakeholder attitudes.

Challenges:

- **Level of analysis question: how best to balance individual and organizational attitudes?**
- **Overcoming anticipated low response rate**
- **Best channels for reaching stakeholders**
- **How to reconcile results with previous stakeholder studies**

Sectoral Distribution and Sample Choice Card



N=309

(2/5) Imagine your organisation is giving you resources to support a NETP project of your choice. Which of the following NETP projects are you more likely to support?

Project 1		Project 2	
Type of NETP	Nature-based solutions (biological storage of the CO2 captured, into plants or soil)	Type of NETP	Technology-based solutions (geological storage of the CO2 captured as minerals)
Permanence of CO2 captured	1000 years	Permanence of CO2 captured	100 years
Cost (€/ton of CO2 captured)	100€	Cost (€/ton of CO2 captured)	200€
Proponent of the project	Environmental NGO	Proponent of the project	Energy/Oil&Gas company
Resource use and impact	<p>LOW Energy & Water Use</p> <p>HIGH Impact on Land, Food Security and Biodiversity</p>	<p>HIGH Energy & Water Use</p> <p>LOW Impact on Land, Food Security and Biodiversity</p>	

Would you allocate resources to support the selected project?

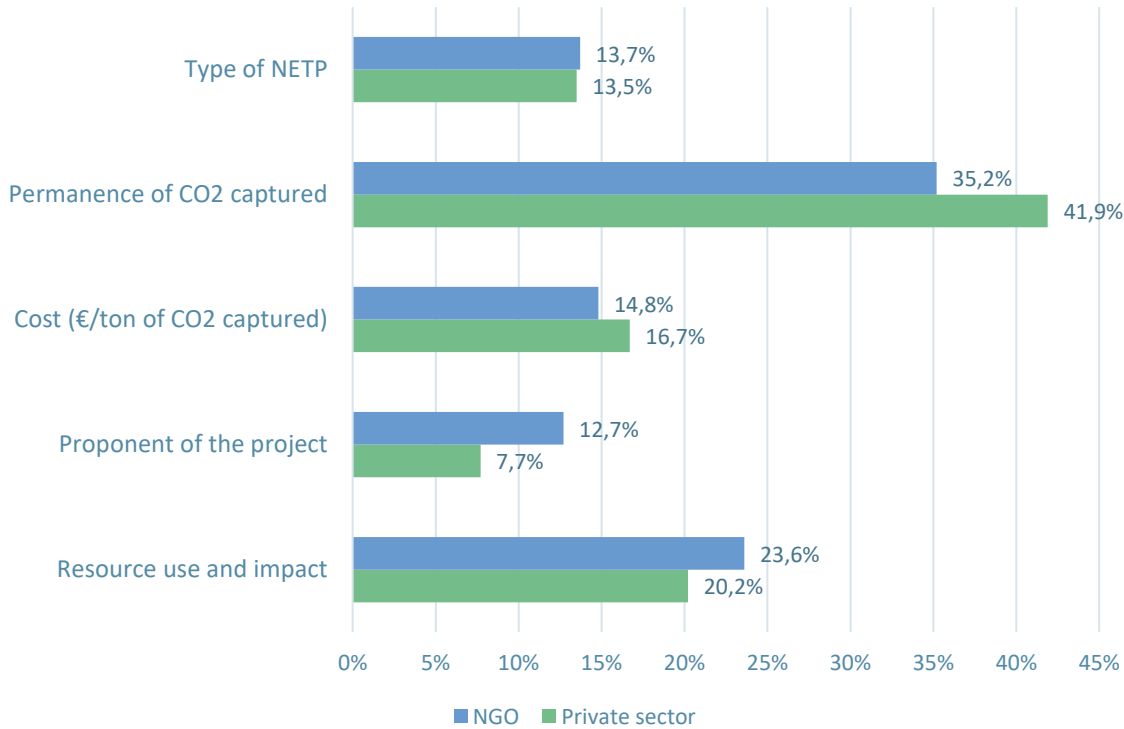
 Yes

 No

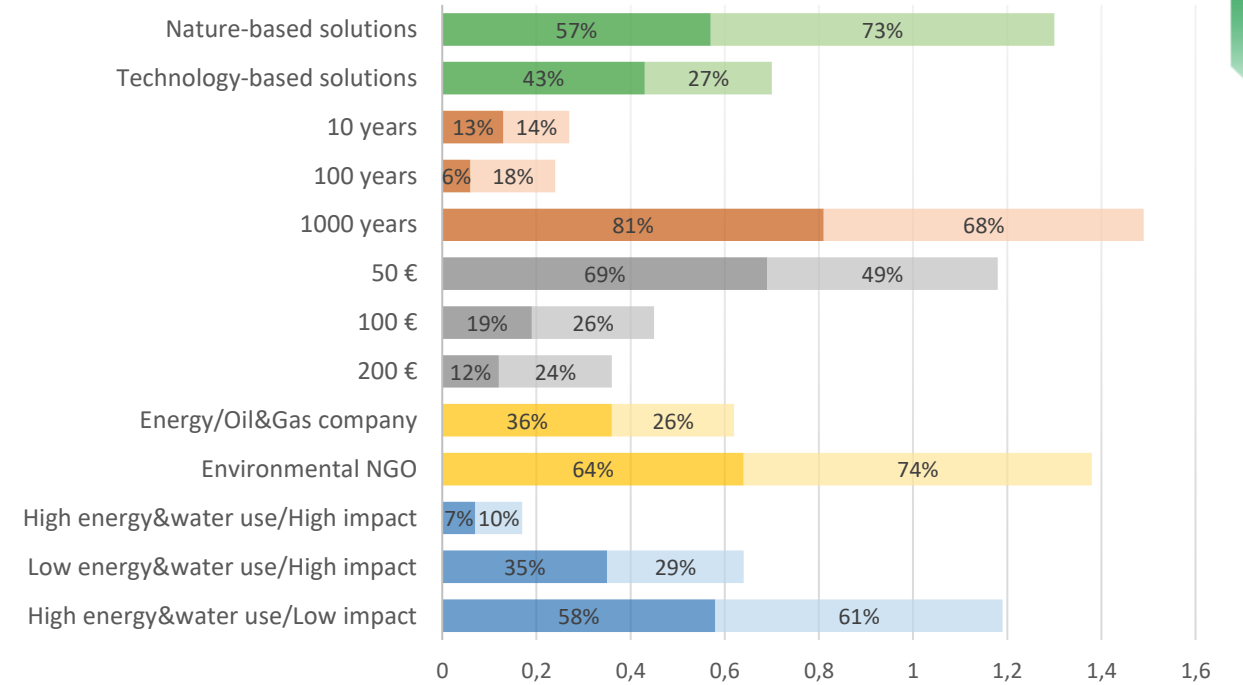

Stakeholder Survey Results



Importance of each dimension for NGO and private sector respondents



Preferences across different levels within each dimension for NGO and private sector respondents



- Type of NETP_Private sector
- Permanence of CO2 captured_Private sector
- Cost (€/ton of CO2 captured)_Private sector
- Proponent of the project_Private sector
- Resource use and impact_Private sector
- Type of NETP_NGO
- Permanence of CO2 captured_NGO
- Cost (€/ton of CO2 captured)_NGO
- Proponent of the project_NGO
- Resource use and impact_NGO

Public perceptions of marine CDR

Christine Merk

joint with Gisle Andersen, Åsta Nordø & Endre Tvinnereim



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Public perceptions of marine CDR

3 Studies

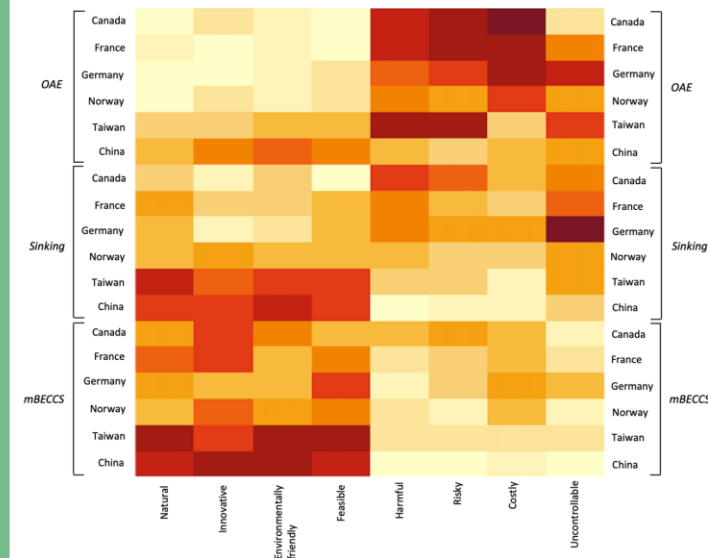
- 2021: Focus groups in Germany and Norway, N=36
- 2022: Deliberative survey in Norway, N=89
- 2023: Cross-country survey in Canada, China, France, Germany, Norway, and Taiwan, N~2000 per country

Broad range of marine CDR methods

Ocean Alkalinity Enhancement, marine BECCS, Seaweed Sinking, Coastal Ecosystem Restoration, Artificial Upwelling, Ocean Fertilization

Land-based options for comparison

Enhanced Weathering, land-based BECCS



Profile of positive & negative associations with marine CDR from cross-country survey

Main results

Focus groups (*2 hrs discussion in small groups*)

- Participants **prioritize emissions reduction and lifestyle changes**
- Unknown CDR methods are evaluated **using associations with known phenomena** such as aquaculture, marine pollution, freshwater liming, fertilization on land

Deliberative survey (*4 hrs discussion with experts & in groups combined with pre- and post-survey*)

- **Land-based** methods are perceived **more positively than ocean-based**
- More information and longer discussions about climate policy and CDR **reduces uncertainty about CDR methods** but does not change perceptions of CDR methods significantly

Cross-country survey

- Ranking of methods consistent across countries: alkalinity enhancement < sinking seaweed < mBECCS
- Perceptions are more positive in China and Taiwan especially compared to France, Germany and Canada

Public perceptions and acceptability of NETPs

18 April 2024

Prepared by: Chieh-Yu Lee, Goda Perlaviciute and Linda Steg (RUG)



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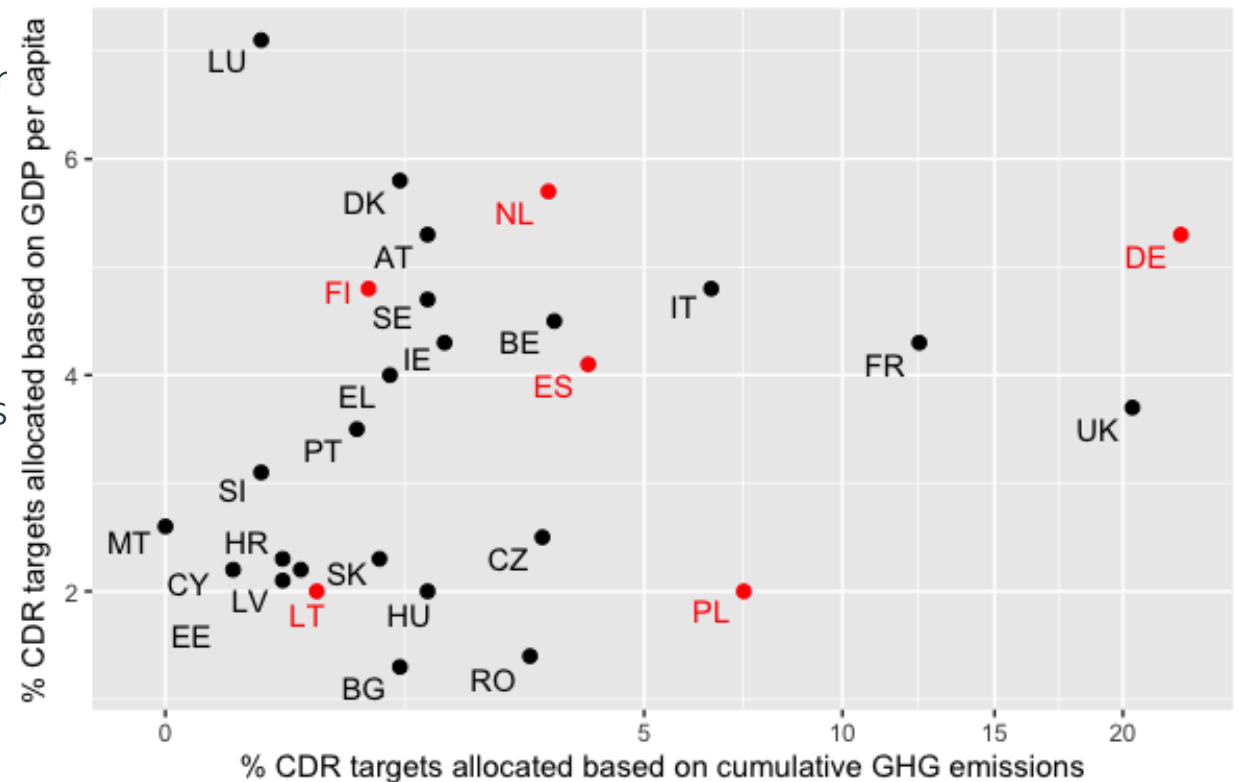


Representative sample in six European countries

Germany, Spain, Finland, Lithuania, the Netherlands, and Poland

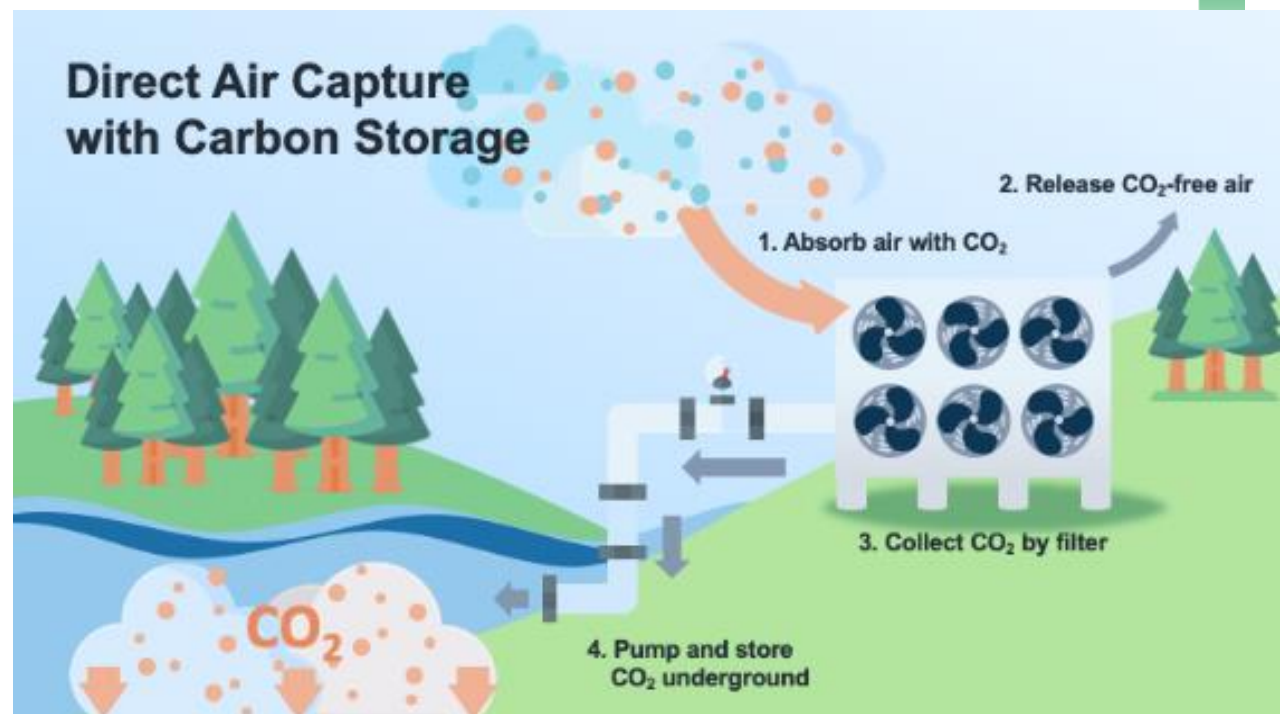
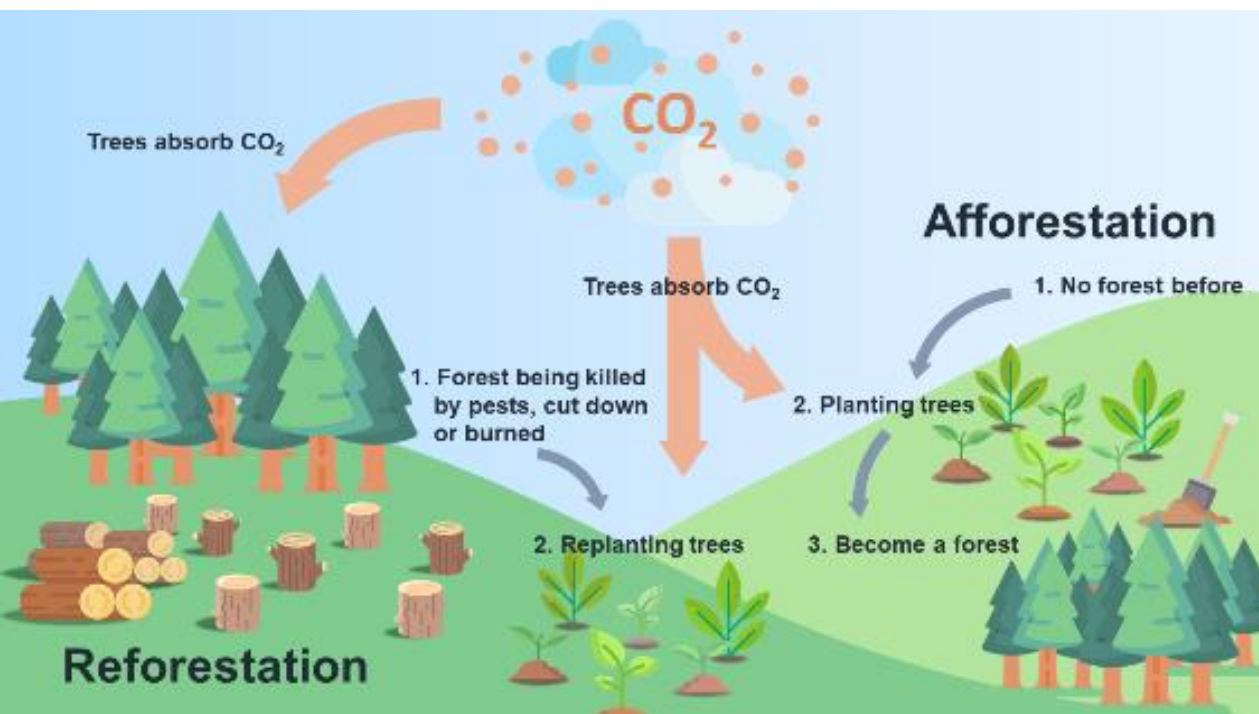


- **Country selection criteria:** geographical distributor CDR targets based on emissions and GDP per capita (D. 4.3), and available land.
- **Online Survey:** launched at the same time in all countries from August to September 2023.
- **Participants:** after quality check, **5,512** participants included in the analysis.

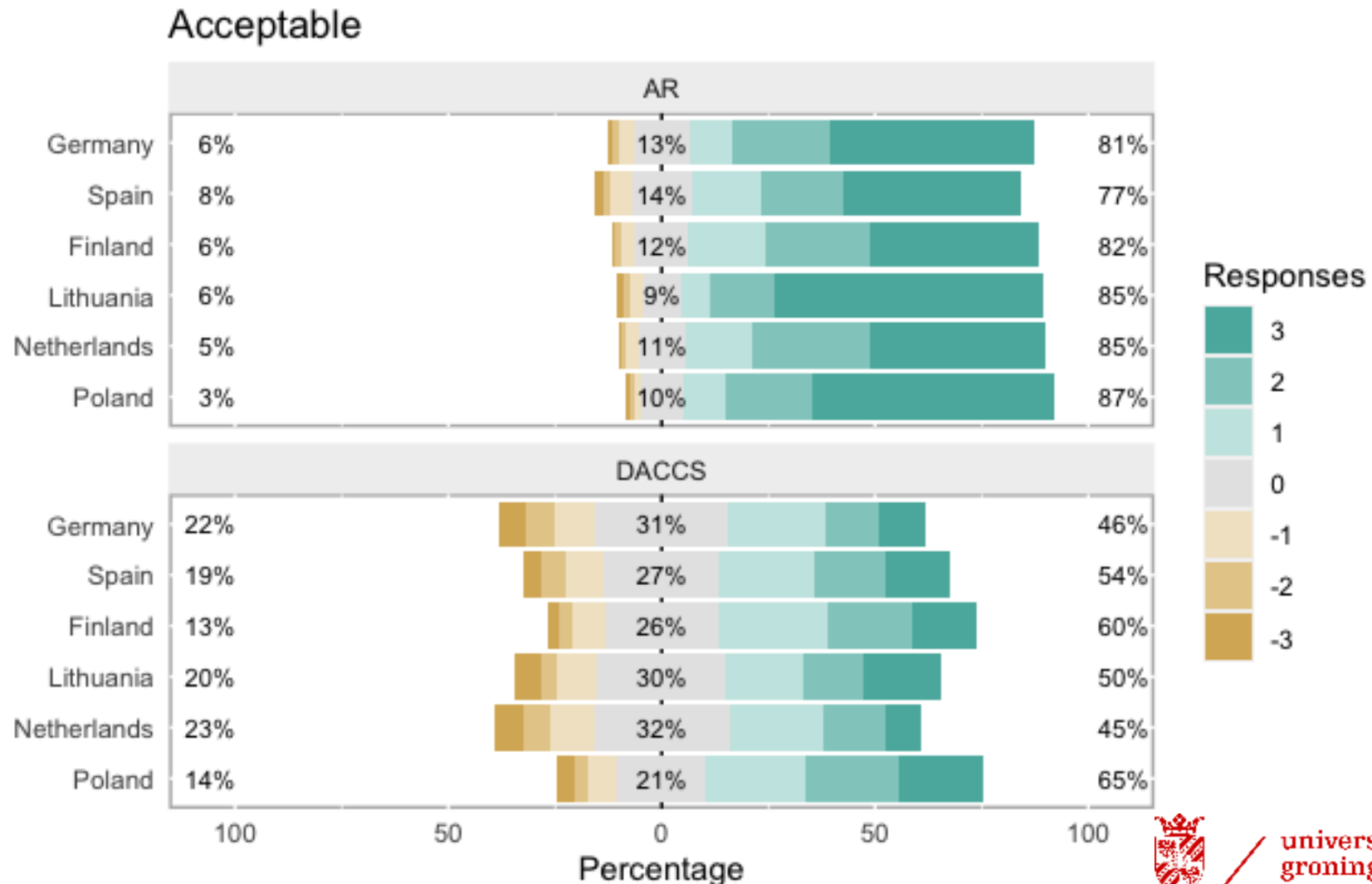




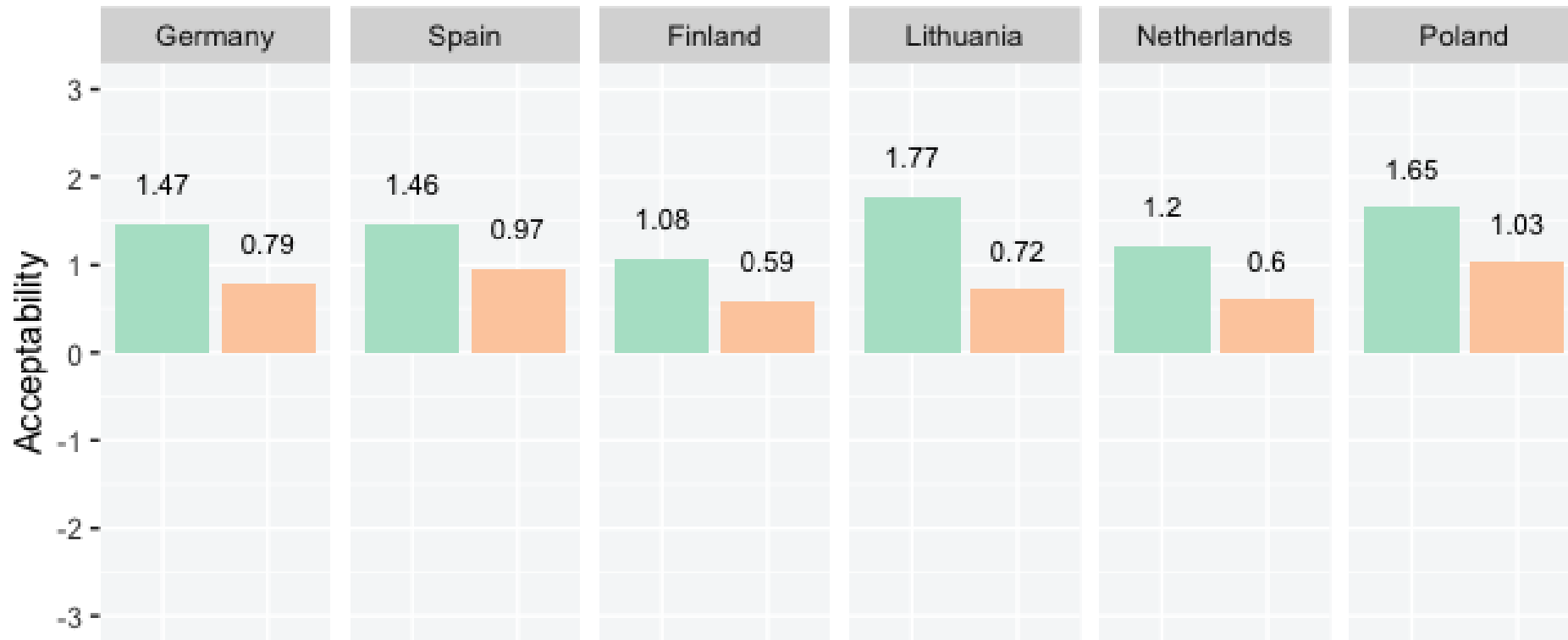
Focus on two NETPs: A/R and DACCS



AR is perceived as more acceptable than DACCS

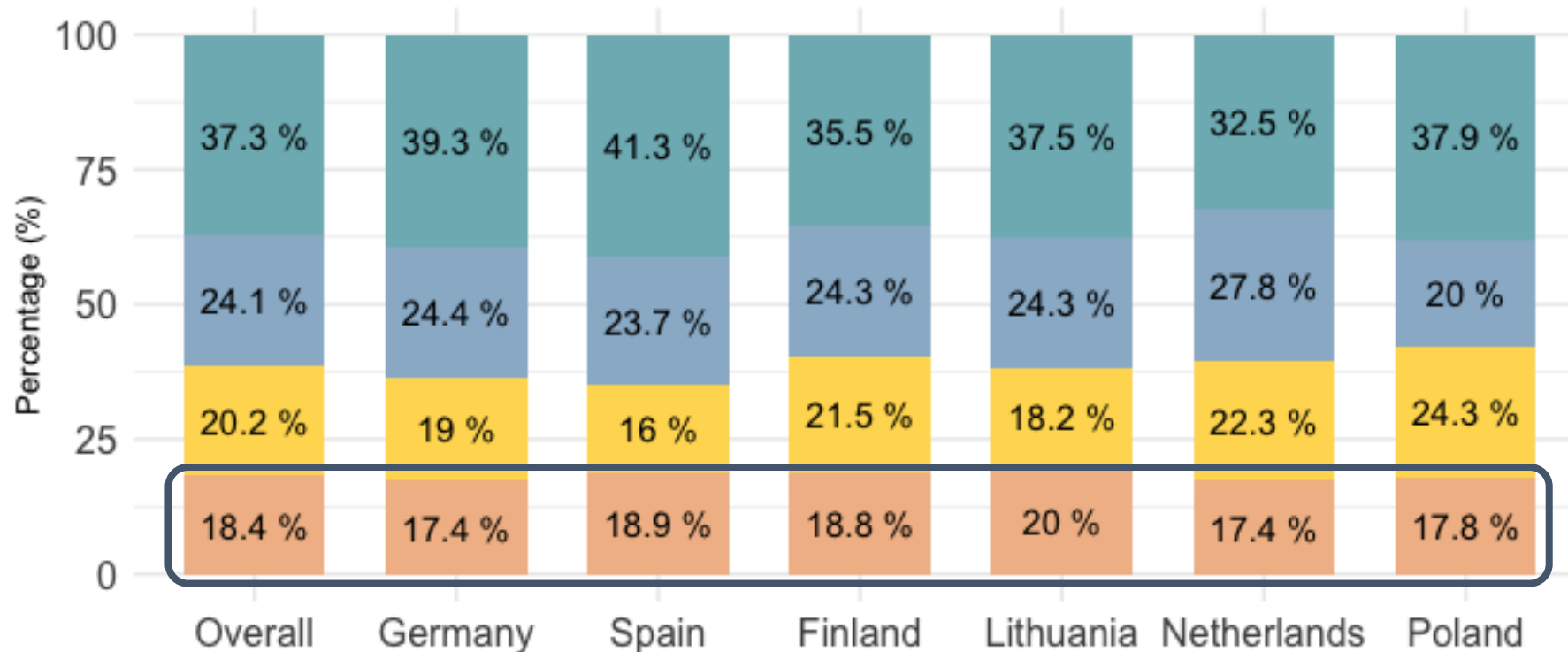


People find it more acceptable that their country would implement AR compared to DACCS



AR DACCS

People think CO₂ emissions should mostly be reduced by renewable energy and behaviour change



Method

- Renewable energy
- Behaviour change
- Nuclear energy
- NETPs implementation



Thank you!

Project Partners



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